(19) World Intellectual Property Organization International Bureau



(43) International Publication Date 28 June 2001 (28.06.2001)

PCT

(10) International Publication Number WO 01/45592 A1

(51) International Patent Classification7:

Sunnyvale, CA 94085 (US). NOOL, Jeffrey, A.: 460 Coy-

(21) International Application Number: PCT/US00/35159

A61F 2/01

(22) International Filing Date:

22 December 2000 (22.12.2000)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

09/470,919

23 December 1999 (23.12.1999)

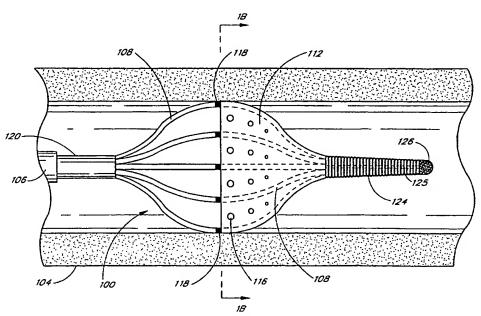
- (71) Applicant: PERCUSURGE, INC. [US/US]; 540 Oakmead Parkway, Sunnyvale, CA 94085 (US).
- (72) Inventors: MCGILL, Scott, A.; 129 Hillview Avenue, Redwood City, CA 94062 (US). BAGAOISAN, Celso, J.; 4441 Pomponi Street, Union City, CA 94587 (US). PA-TEL, Mukund, R.; 427 Ridgefarm Drive, San Jose, CA 95123 (US). ERRAZO, Arlene, L.; 953 E. Duane Avenue,

ote Creek Circle, San Jose, CA 95716 (US). ZADNO-AZ-IZI, Gholam-Reza; 8213 Del Monte Avenue, Newark, CA 94560 (US).

- (74) Agent: ALTMAN, Daniel, E.; Knobbe, Martens, Olson and Bear, LLP, 16th Floor, 620 Newport Center Drive, Newport Beach, CA 92660 (US).
- (81) Designated States (national): AE, AG, AL, AM, AT, AT (utility model), AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, CZ (utility model), DE, DE (utility model), DK, DK (utility model), DM, DZ, EE, EE (utility model), ES, Fl, Fl (utility model), GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK. SK (utility model), SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE,

[Continued on next page]

(54) Title: VASCULAR FILTERS WITH RADIOPAQUE MARKINGS



(57) Abstract: Vascular filters are disclosed which have radiopaque markings that indicate the extent to which the filter has expanded. The markings thus provide an indication to the user as to whether the filter has been properly deployed in the vessel. In preferred embodiments, the deployed filter acts as a perfusion-filter to allow for the perfusion of blood while simultaneously capturing emboli which may be generated as a result of a vascular procedure such as angioplasty. A membrane with holes therein may be used for the purpose of allowing the perfusion of blood while entraining emboli and other particulates.



IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:

- With international search report.
- Before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments.